UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/798,491	03/11/2004	Kenneth E. Kellar	60264-USA-DIV1	6264

7590 12/13/2005

Patent Administrator
FMC Corporation
1735 Market Street
Philadelphia, PA 19103

EXAMINER	
DOUYON, LORNA M	

ART UNIT	PAPER NUMBER
1751	

DATE MAILED: 12/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/798,491	KELLAR ET AL.	
	Examiner	Art Unit	
	Lorna M. Douyon	1751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *37-53* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *37-53* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *2 pages*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Objections

1. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claims 46-54 have been renumbered 45-53, respectively.

2. Claims 42, renumbered claims 50, 52 and 53 are objected to because of the following informalities:

a) in claim 42, line 3, "perchlorates" is misspelled.

b) the dependencies of renumbered claims 50, 52 and 53 should be replaced with claims 49, 51 and 52, respectively.

Appropriate correction is required.

Specification

3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: Renumbered claim 47, line 3 requires "about 1:1" ratio of (i) lauryl alcohol to (ii) sodium lauryl sulfate, magnesium lauryl sulfate or a mixture thereof", however, the specification fails to provide proper antecedent basis for this limitation. It is suggested that said limitation be incorporated into an appropriate section of the specification.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 37, 39, 40, 42 and renumbered 49 are rejected under 35 U.S.C. 102(b) as being anticipated by Hutchings (US Patent No. 4,861,514).

Hutchings teaches a one-part, chlorine dioxide cleaner in the form of a Consumer Hand Soap which comprises 0.25wt% sodium chlorite, 0.5wt% xanthan gum, 1.0wt% alpha olefin sulfonate (an anionic surfactant), 0.2% perfume and 98.05wt% water, wherein several days after preparation, the composition would form chlorine dioxide which would be stably entrapped in the composition (see Example 6 in col. 10 lines 55-65; col. 11, lines 22-24; col. 8, lines 13-15).

Hutchings also teaches that the formation of chlorine dioxide commences upon or shortly after admixing of the ingredients, the equilibrium levels generally being reached within a week, preferably within two or three days, of admixture and the suitable equilibrium concentrations of the chlorine dioxide are from about 0.1 to about 10 ppm, and where the intended utility is disinfection, the equilibrium chlorine dioxide concentration is preferably above about 1ppm (see col. 7, lines 4-13). Hutchings also teaches that the viscosity of the composition is above about 75 cps, preferably 75 to 1000 cps (see col. 2, lines 65-66). Hutchings also teaches that the chlorine dioxide cleaner is used not only as a hand soap but also as a toilet bowl cleaner, hard surface cleaner, disinfecting skin cream and institutional rinse for dishwashers (see col. 10, line 66 to col. 11, line 20). Hutchings teaches the limitations of the instant claims. Hence, Hutchings anticipates the claims.

6. Claims 37, 39, 40, 41 and renumbered 49 are rejected under 35 U.S.C. 102(e) as being anticipated by Asgharian (US Patent No. 6,316,506).

Asgharian teaches a multi-purpose solution for daily cleaning, rinsing, disinfecting and conditioning of contact lenses which comprises 0.2 w/v% hydroxypropyl guar, 0.25 w/v% Tetronic 1304 (a nonionic surfactant), 0.001 w/v% (10 ppm) polyquaternium-1 (an antimicrobial agent, see col. 6, lines 41-50) and balance, water (see Example 3, col. 9, line 65 to col. 10, line 25). Asgharian also teaches that non-gelled conditioning compositions will have a viscosity of from about 5 to 100 cps and a gelled composition will have a viscosity of about 10 to 1000 cps (see col. 5, lines 33-38). In order to disinfect and condition the lenses, they will be stored in the

composition for a period of about 4 hours to overnight (see col. 9, lines 32-35). Asgharian teaches the limitations of the instant claims. Hence, Asgharian anticipates the claims.

7. Claims 37, 39, 40, 43 and renumbered 49 are rejected under 35 U.S.C. 102(b) as being anticipated by Tanaka et al. (US Patent No. 4,500,441), hereinafter "Tanaka".

Tanaka teaches an aqueous contact lens cleaning and storage solution comprising 0.125 w/v% sodium dodecylbenzene sulfonate, 0.125 w/v% polyethylene glycol(15) octylphenyl ether, 0.50 w/v% sodium alginate and 0.001% (10 ppm) Bronopol, which is a germicide or an antimicrobial agent, and was subjected to a cleaning test wherein a contaminated specimen was soaked in the aqueous solution and allowed to stand for a prescribed period of time, and it was confirmed that the solution had an excellent cleaning effect (see Example 2 in Table 4, col. 9, lines 4-32; col. 4, lines 26-30). Even though Tanaka does not explicitly disclose the viscosity of the solution, it would be inherent in the solution of Tanaka to possess a viscosity within those recited because the same composition with the same ingredients and proportions have been utilized. Hence, Tanaka anticipates the claims.

8. Claims 37-43, renumbered 48-51 are rejected under 35 U.S.C. 102(e) as being anticipated by Hei et al. (US Patent No. 6,663,902), hereinafter "Hei".

Hei teaches a biocidal composition comprising at least one iodo-compound having at least one iodine atom and a source of chlorite ions wherein the composition finds use in a variety of applications including methods of cleaning, sanitizing, deodorizing, and disinfecting various surfaces (see abstract). In one embodiment, Hei teaches a water-thickening two-part system

wherein an aqueous first part is mixed with an aqueous second part, the first part contains an iodo-compound having at least one iodine atom and the second part contains a source of chlorite ions and the first and/or second part will also contain a viscosity modifying agent (see col. 11, lines 9-16). Using the two-part generating system can result in the generation of iodine, a first biocidal compound, which is subsequently followed, and ultimately replaced by the generation of chlorine dioxide, a second biocidal compound (see col. 3, lines 6-10). Hei also teaches a teat dip product comprising 0.1 wt% nonionic surfactant, 0.5 wt% linear alkyl benzene sulfonate, 0.04 wt% (400 ppm) potassium iodide, 0.3 wt% xanthan gum thickener, and the remainder water, which product was activated with sodium chlorite (1000 ppm) (see col. 22, line 62 to col. 23, line 35). Hei also teaches that the chlorine dioxide precursor is preferably a chlorite compound which is a salt of an alkali metal or an alkaline earth metal such as magnesium chlorite, and the metal chlorite is present in the aqueous solutions in concentrations of about 0.01-75 wt% (see col. 6, lines 51-67). Organic thickeners, other than xanthan gum, also include guar gum (see col. 8, lines 41-42). During a clean-in-place (CIP) procedure, an initial aqueous rinse is passed through the processing equipment followed by a sanitizing/cleaning using the chlorine dioxide generating composition of the present invention in an aqueous solution for at least about 15 seconds, and preferably about 30-120 seconds (see col. 16, line 57 to col. 17, line 2). Even though Hei does not explicitly disclose the viscosity of the composition, it would be inherent in the composition of Hei to possess a viscosity within those recited because same ingredients and proportions have been utilized. Hence, Hei anticipates the claims.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claim 44 and renumbered claim 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hei as applied to the above claims, and further in view of Gutzmann et al. (US Patent No. 6,183,807), hereinafter "Gutzmann".

Hei teaches the features as described above. In addition, Hei teaches a chlorine dioxide based skin treatment product comprising a linear dodecyl benzene sulfonate (an anionic surfactant), (see col. 22, lines 25-33) and a hard surface cleaner comprising linear alcohol 9 mole ethoxylate (see col. 29, line 44). Hei, however, fails to disclose the nonionic surfactant having an alkyl group within those recited.

Gutzmann teaches a similar composition for cleaning and sanitizing meat products (see col. 1, lines 14-16) which comprises alcohol alkoxylate nonionic surfactants having EO, PO and BO blocks like straight chain primary aliphatic alcohol alkoxylates, in particular those having the general formula $R\text{-}(EO)_m\text{-}(PO)_n$ wherein m is an integer of about 2-10 and n is an integer from about 2-20 and R can be any suitable radical such as straight chain alkyl group having from about 6-20 carbon atoms.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to reasonably expect the nonionic surfactant of Hei to possess an alkyl group within

those recited because it is known from Gutzmann that the linear or straight chain alcohol alkoxylate nonionic surfactants which are utilized in similar compositions comprises an alkyl or R group having from about 6-20 carbon atoms.

Double Patenting

11. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., In re Berg, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); In re Goodman, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); In re Longi, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); In re Van Ornum, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); In re Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and In re Thorington, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

12. Claims 37 through renumbered claim 53 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-19, 31-35 of U.S. Patent No. 6,828,294 in view of Hei.

US '294 teaches a similar sanitizer composition, method of sanitizing a surface and a sanitizer kit with the exception of a biopolymer in an amount from about 0.025 wt% to about 1.0 wt%.

Hei teaches a similar sanitizer composition comprising thickeners like guar gum and xanthan gum to enhance the viscosity of the composition to cling to the surface being treated (see col. 8, lines 12-15; 38-43), for easy and effective application, and for improved prophylactic effect (see col. 9, lines 7-13). In Table 6, Hei teaches a composition comprising a thickener like xanthan gum in an amount of 0.3 wt% (see col. 23, lines 6-25).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate a thickener like guar gum or xanthan gum into the sanitizer composition of US' 294 in an amount of, say, 0.3 wt%, because this would enhance the viscosity of the composition in order to cling to the surface being treated, for easy and effective application, and for improved prophylactic effect to the composition as taught by Hei.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references are considered cumulative to or less material than those discussed above.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lorna M. Douyon whose telephone number is (571) 272-1313. The examiner can normally be reached on Mondays-Fridays from 8:00AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta can be reached on (571) 272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lorna M. Douyon
Primary Examiner
Art Unit 1751